

AMENDMENTS

IN THE CLAIMS:

Please cancel claim 16, and amend claims 1-15 and 17-20 as follows below:

1. (Currently amended) A method for cleaning a wafer, comprising:
patterning a via or a trench, or both, in a porous, low-k dielectric layer overlying the wafer;
cleaning a polymer residue from an ~~etched wafer~~ surfaces of the patterned dielectric layer using a wet clean solvent; and
performing an a non-plasma anneal on the ~~etched wafer~~ patterned dielectric layer to remove a component of the solvent prior to a metal deposition.
2. (Currently amended) The method of claim 1, wherein the ~~etched wafer~~ comprising dielectric layer comprises at least one of: an organosilicate glass (OSG), a methylsilsesquioxane (MSQ) dielectric material, a fluorine-doped silicate glass (FSG), and a silicon-dioxide (SiO₂).
3. (Currently amended) The method of claim 1, wherein the wet clean solvent ~~comprising~~ comprises an acid.
4. (Currently amended) The method of claim 3, wherein the component ~~comprising~~ comprises dimethyl acetamide (DMAC).
5. (Currently amended) The method of claim 1, further comprising:
performing a dry clean of the ~~etched wafer~~ patterned dielectric layer to remove a photoresist, prior to cleaning the polymer residue.

6. (Currently amended) The method of claim 5, wherein the dry clean ~~comprising~~ comprises a plasma including at least one of: hydrogen, oxygen and an inert gas.

7. (Currently amended) The method of claim 1, wherein the anneal ~~comprising~~ comprises a low-pressure anneal.

8. (Currently amended) The method of claim 1, wherein the low-pressure anneal is performed in substantially a vacuum.

9. (Currently amended) The method of claim 1, wherein the anneal ~~comprising~~ comprises a high-temperature anneal.

10. (Currently amended) The method of claim 9, wherein the high-temperature anneal is performed at a higher temperature than a boiling point of the component.

11. (Currently amended) The method of claim 9, wherein the high temperature anneal is performed at a temperature ~~at most~~ less than or equal to 300 degrees Celsius.

12. (Currently amended) The method of claim 9, wherein the high temperature anneal is at least partially performed at 250 degrees Celsius.

13. (Currently amended) The method of claim 1, wherein the anneal is performed for a duration that does not alter a critical dimension of the ~~etched wafer~~ patterned dielectric layer and does not cause a metal extrusion.

14. (Currently amended) The method of claim 13, wherein the duration ~~comprising~~ comprises at most three minutes.

15. (Currently amended) The method of claim 1, wherein the anneal excludes an application to the ~~etched wafer~~ patterned dielectric layer of a plasma generated from at least one of: a radio-frequency energy and a microwave energy.

16. (Canceled).

17. (Currently amended) The method of claim 1, wherein the metal deposition ~~including~~ includes a copper deposition.

18. (Currently amended) The method of claim 1, wherein the metal deposition ~~comprising~~ comprises at least one of: a barrier deposition and a metal seed layer deposition.

19. (Currently amended) A method for preparing a wafer for a metal deposition, comprising:

patterning a via or a trench, or both, in a porous, low-k dielectric layer overlying the wafer;

performing a wet clean process on a ~~post-etch wafer~~ the patterned dielectric layer using a solvent comprising DMAC; and

performing an anneal on the ~~post-etch wafer~~ patterned dielectric layer to remove an absorbed component of the solvent after the wet clean process and prior to a metal deposition, the anneal performed at a temperature higher than a boiling point of the component.

20. (Currently amended) A method for removing volatile cleanser compounds from a post-etch substrate, comprising:

performing a plasma strip of an exposed low k dielectric material to remove a photoresist residue after an etch of the material;

performing a wet clean process using a fluorine-based solvent to remove a

polymer residue of the plasma strip from the material; and

performing a low-pressure, high-temperature, limited-duration anneal after the wet clean process and prior to a metal barrier deposition to remove a component of the fluorine-based solvent from the material, ~~whereby~~ wherein the anneal is exclusive of an application of a plasma generated from one or more of: a radio-frequency (RF) radiation and a microwave radiation.